BC hydro

Report on the
Interministerial Referral
Process

Fraser Valley System Reinforcement Project

July 1991

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FRASER VALLEY SYSTEM REINFORCEMENT PROJECT

REPORT
on the
INTERMINISTERIAL REFERRAL PROCESS

JULY 1991

92-00225/

FRASER VALLEY SYSTEM REINFORCEMENT PROJECT
Report on the Interministerial Referral Process

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1.0 INTRODUCTION

This report summarizes the process by which comments on the project under study were solicited from government agencies at the provincial, federal and municipal levels. B.C. Hydro's response to those comments is also described. Although entitled "Interministerial Referral", this process encompasses municipal councils, federal government agencies and others besides provincial government ministries. The objective of this process was to maximize participation by providing project information to the agencies and inviting their preliminary comments on the project prior to the more formal review of the Energy Project Certificate Application. In this manner, the process is designed to assist the agencies in their review of the Energy Project Certificate Application by providing B.C. Hydro's response to their preliminary comments.

B.C. Hydro's 30 April 1991 letter, under the signature of J. Barker, briefly described the project and transmitted an information package which included a copy of B.C. Hydro's April 1991 News Brief entitled "South Fraser Valley System Reinforcement". This information package briefly commented on the rationale for the studies, provided a description of the project, discussed project alternatives and outlined the environmental studies, project schedule and public consultation process. A copy of the 30 April 1991 letter and information package are provided in Appendix A.

The 30 April 1991 letter from B.C. Hydro to each of the agencies requested comments on any direct and/or indirect environmental impacts, land use effects or other concerns in the agencies particular area of interest. It also requested the identification of any specific areas which warrant careful attention and the identification of any means of avoiding or mitigating identified impacts. In addition, the agencies were requested to comment on the proposed selection of Clayburn Substation as the most effective alternative for the project.

2.0 SUMMARY OF COMMENTS RECEIVED FROM PROVINCIAL, FEDERAL and MUNICIPAL AGENCIES IN RESPONSE TO B.C. HYDRO'S 30 APRIL 1991 LETTER, and B.C. HYDRO'S RESPONSE TO THOSE COMMENTS.

B.C. Hydro's above noted 30 April 1991 letter, together with an information package were sent to a total of 34 government agencies at the provincial, federal and municipal levels (see Appendix A for a listing of recipients of the letter). A total of 23 replies were received by the date of the preparation of this report. These replies together with any action that B.C. Hydro has taken, or proposes to take in response to the comments noted in those replies, are summarized in Table 1.

A copy of each reply is included in Appendix B. In this regard it should be noted that some recipients of the letter either referred the letter to others within their organization or requested B.C. Hydro to do so. A review of the response letters contained in Appendix B will show where this has occurred. Any follow-up correspondence is included in Appendix C.

TABLE 1

SUMMARY OF COMMENTS RECEIVED FROM PROVINCIAL, FEDERAL and MUNICIPAL AGENCIES IN RESPONSE TO B.C. HYDRO'S 30 APRIL 1991 LETTER, and B.C. HYDRO'S RESPONSE TO THOSE COMMENTS.

Name of Respondent to 30 April, 1991 Letter from J. Barker	Date of Response	Salient Comments	B.C. Hydro Response
PROVINCIAL GOVERNMENT			
W.E.A. Wickens, Director, Ministry of Agriculture and Fisheries South Coastal Region, Abbotsford, B.C.	13 May 1991	The use of Clayburn Substation does not appear to involve any direct incursions onto neighbouring agricultural lands and consequently, is not a concern; care must be taken to ensure runoff patterns of Willband Creek are not affected.	Comments noted; drainage management plan and environmental protection plan will address this issue.
Janet Fontaine Land Use Coordinator Ministry of Energy, Mines, and Petroleum Resources, Mineral Policy Branch	15 May 1991	Will comment on project as part of the Energy Project Certificate Application (EPCA) review process.	Comment noted.
M.J. Kent, Manager, Environmental Services Ministry of Transportation and Highways 940 Blanshard Street Victoria, B.C. V8W 3E6	15 May 1991	No concerns other than the possible need to close Valley Road during construction; if this is required, a permit will be needed from the Ministry's Fraser Valley District office in Chilliwack.	Comments noted. It is very unlikely that Valley Road will require closure.

Table 1. continued

Name of Respondent to 30 April, 1991 Letter from J. Barker	Date of Response	Sclient Comments	B.C. Hydro Response
D.A. Kasianchuk Comptroller of Water Rights Ministry of Environment, Water Management Branch 765 Broughton Street Victoria, B.C. V8V 1X5	16 May 1991	Although there are no water management implications associated with either option, approvals may be required from regional office for impacts on local water courses - letter was forwarded to Regional Water Manager, Prad Khare. (Surrey)	Comments noted.
W.J. Grant, Executive Director, Regulatory Affairs and Planning B.C. Utilities Commission Box 250, #600, 900 Howe Street Vancouver, B.C. V6Z 2N3	17 May 1991	Will comment on project as part of Energy Project Certificate Application process.	Comment noted.
M.G.G. Briscoe Senior Regional Devt Approval Tech. Ministry of Transportation and Highways 7818 - 6th Street Burnaby, B.C. V3N 4N8	27 May 1991	No concerns - have referred request to local office in Chilliwack for any more specific concerns.	Comment noted.
R.H. Roberts, Regional Director Ministry of Lands & Parks Lower Mainland Region #401, 4603 Kingsway Burnaby, B.C. V5H 4M4	29 May 1991	No concerns since Crown Land not likely to be involved.	Comment noted.
R.A. Kenny Senior Coordinator, Resource Management Archaeology Branch Ministry of Municipal Affairs, Recreation and Culture 5th Floor, 800 Johnson Street Victoria, B.C. V8V 1X4	31 May 1991	Once preferred option is chosen, an Archaeological Impact Assessment must be undertaken by B.C. Hydro.	Comment noted.

Table 1. continued

Name of Respondent to 30 April, 1991 Letter from J. Barker	Date of Response	Salient Comments	B.C. Hydro Response
Mr. Graham Dragushan Senior Policy Analyst Ministry of Agriculture, Fisheries and Food; Policy Branch 808 Douglas Street Victoria, B.C. V8W 2Z7	2 June 1991	Clayburn has the least impact on the agricultural sector and is therefore preferred; if any of the other sites are chosen, contact must be made with regional staff in Abbotsford; suggest contacting Agricultural Land Commission if there is any impact on land within the ALR	Comment noted.
Denise Mullen Acting Director Energy Project Analysis Branch Ministry of Energy, Mines, and Petroleum Resources	3 June 1991	1. One-month comment turnaround time unrealistic; EPCA review will take several months. 2. Ensure public input is documented/incorporated into EPCA. 3. Assess alternatives to Clayburn station upgrading and rationale for selecting it as preferred option. 4. Ensure EPCA requirements are satisfied.	Comment noted regarding one month time frame; all replies will be appreciated regardless of date of receipt. The results of the Public Consultation Process will be documented in a separate report and submitted as part of the EPCA. This information will form part of the EPCA and reference documents. Comment noted.
K.B. Miller, General Manager Agricultural Land Commission Room 133, 4940 Canada Way Burnaby, B.C. V5G 4K6	3 June 1991	Commented on 3 project options: McLellan Substation - no objections provided there is no expansion to the south. Atchelitz Substation - All land is within ALR - serious reservations. Clayburn Substation - Land is in ALR, but Commission has been considering excluding from ALR. Therefore, application would still be required, but objections to the proposal are unanticipated.	All comments noted.

Table 1. continued

Name of Respondent to 30 April, 1991 Letter from J. Barker	Date of Response	Salient Comments	B.C. Hydro Response
Nicholas P. May, Director Natural Resources Management Ministry of Native Affairs Parliament Buildings Victoria, B.C. V8V 1X5	6 June 1991	Comments directly related to Clayburn option although they would still apply if other options chosen: 1. Four Reserves of two Indian Bands (Matsqui and Sumas) in immediate area of Clayburn. 2. Sumas Band was affected by B.C. Hydro transmission line at Upper Sumas I.R. #6. 3. Must assure that there is no impact on Fraser River fisheries. 4. Archaeological sites must be protected; consult with Matsqui and Sumas Bands. 5. Employment opportunities with the Band should be pursued. 6. Consultation with the Bands is strongly recommended.	Comment noted. Letter and News Brief sent for comment (see Appendix C.). Comment noted. Protection measures for Willband Creek will be implemented; also noted in coments from Fisheries and Oceans Canada; this will be incorporated into the Environmental Protection Plan. An archaeological assessment will be undertaken and consultation will occur with the Bands; this will be incorporated into the Environmental Protection Plan. Opportunities will be provided through B.C. Hydro's normal contracting procedures. Comment noted; both bands have been contacted regarding the project.
Mr. G.W. Curtis, Executive Director Policy, Planning and Legislation Ministry of Health 1515 Blanshard Street Victoria, B.C. V8W 3C8	10 June 1991	No concerns if Clayburn is the site chosen; if there are changes to the project plan, they would like to be informed.	Comment noted.
Mr. M.H. Turner, Manager Planning and Conservation Services Ministry of Lands and Parks 1610 Mt. Seymour Boulevard North Vancouver, B.C. V7G 1L3	12 June 1991	Response to letter sent to Mr. Gil Scott; no concerns	Comment noted.

Table 1. continued

Name of Respondent to 30 April, 1991 Letter from J. Barker	Date of Response	Salient Comments	B.C. Hydro Response
Mr. Jim McCracken Regional Director Ministry of Environment Lower Mainland Region 10334-152A Street Surrey, B.C. V3R 7P8	No response		
Mr. Doug Dryden Environmental Assessment Policy and Planning Branch Ministry of Environment 777 Broughton Street Victoria, B.C. V8V 1X5	No response		
Mr. Bayne Vance Pesticide Control Branch Ministry of Environment Lower Mainland Region 10334 - 152 A Street Surrey, B.C. V3R 7P8	No response		
Mr. Ken Lambertson Fish and Wildlife Ministry of Environment Lower Mainland Region 10334 - 152 A Street Surrey, B.C. V3R 7P8	No response		
Mr. Ken Ingram Regional Manager Ministry of Forests Vancouver Forest Region 4595 Canada Way Burnaby, B.C. V5G 4L9	No response		

Table 1. continued

Name of Respondent to 30 April, 1991 Letter from J. Barker	Date of Response	Salient Comments	B.C. Hydro Response
Mr. Howard Hunter Regional Approving Officer Ministry of Transporation and Highways South Coast Region 7818 6th Street Burnaby, B.C. V3N 4N8	No response		
Mr. Mike Wong Waste Management Ministry of Environment Lower Mainland Region 10334 - 152 A Street Surrey, B.C. V3R 7P8	No response		

Table 1. continued

Name of Respondent to 30 April, 1991 Letter from J. Barker	Date of Response	Salient Comments	B.C. Hydro Response
FEDERAL GOVERNMENT			
Mr. Paul Scott Federal Environmental Assessment Review Office #510, 750 Cambie Street Vancouver, B.C. V6B 2P2	9 May 1991	Recommended that referral be sent to the Department of Fisheries and Oceans and Department of Environment.	Comment noted; letter sent 21 May 1991 to Environment Canada and Fisheries and Oceans Canada (See Appendix C)
Mr. D. G. Neil A/Superintendent Air Navigation Standards and Procedures Transport Canada Suite 620, 800 Burrard Street Vancouver, B.C. V6Z 2J8	4 June 1991	Comments restricted to Clayburn option; do not anticipate that there will be significant impacts on aviation operations or electronic interference; wishes to review the routings of the new transmission lines once they are selected to determine if aviation obstruction markings are required.	Comments noted; B.C. Hydro will provide detailed information once designs are completed.
Mr. John Millen, P.Eng. for Mr. A.C. Duncan, P.Eng. Coordinator, Referral and Liaison Environment Canada Conservation and Protection 224 West Esplanade, 5th Floor North Vancouver, B.C. V7M 3H7	5 June 1991	The project material has been reviewed and no comments are made.	No response required.

Table 1. continued

Name of Respondent to 30 April, 1991 Letter from J. Barker	Date of Response	Salient Comments	B.C. Hydro Response
C.D. Paterson, Head Habitat Management Unit Fraser River, Northern B.C. and Yukon Division Fisheries and Oceans Canada 610 Derwent Way New Westminster, B.C. V3M 5P8	20 June 1991	Response to initial letter sent to Mr. P. Chamut and subsequent letter to Mr. Paterson of 21 May 1991. 1. Willband Creek is utilized by salmon and trout and considered an extremely valuable fisheries resource. 2. Willband Creek has been greatly affected by runoff and seepage from the landfill. 3. Further study must be undertaken to evaluate the affects of construction and the control of drainage. 4. Additional information must be provided which demonstrates that site drainage, tower location and construction activities will not adversely affect fish or fish habitat in or around Willband Creek.	Noted in preliminary environmental studies. Comment noted. This will be undertaken as part of the Environmental Protection Plan. (See letter to Mr. Paterson in Appendix C) Once plans for construction are available, mitigation measures will be designed and incorporated into the Environmental Protection Plan; this plan will be discussed with DFO staff to ensure their concerns are addressed.
E.R. Campbell Lieutenant-Colonel Director, Frequency Spectrum Management National Defence Ottawa, Ontario K1A 0K1	24 June 1991	There are no military communication facilities within interference range of the proposed project, consequently National Defence has no objection to the construction in question.	Comments noted.

Table 1. continued

Name of Respondent to 30 April, 1991 Letter from J. Barker	Date of Response	Salient Comments	B.C. Hydro Response
MUNICIPAL and REGIONAL GOVERNMENTS			
Kurt Alberts Director of Community Development Township of Langley 4914 - 221 Street Langley, B.C. V3A 3Z8	9 May 1991	No concerns since neither of the 3 options affect Langley Township.	Comments noted.
Ralph D. Keen Deputy Director of Development District of Chilliwack 8550 Young Road South Chilliwack, B.C. V2P 4P1	21 May 1991	Planning and Engineering Departments conclude that Clayburn is the best option for the reinforcement project.	Comment noted.
Peter W. Cave, Director of Planning Regional District of Fraser-Cheam 8430 Cessna Drive Chilliwack, B.C. V2P 7K4	15 May 1991	The respondent assumes that no direct construction is required in the Fraser-Cheam Regional District and therefore concludes that they will be unaffected and hence does not offer specific comments. Confirmation of this assumption was requested. Information was also requested regarding electric and magnetic fields and potential health effects related to transmission lines within the Regional District.	Letter dated 7 June 1991 to Dr. Cave from Mr. Barker (see Appendix C) confirmed that if the proposed project occurs at Clayburn Substation there will be no direct construction in the Fraser-Cheam Regional District. Dr. Kelly Gibney (B.C. Hydro's Electric and Magnetic Field Project Manager) will correspond with Dr. Cave regarding information requested on electric and magnetic field effects.

Table 1. continued

Name of Respondent to 30 April, 1991 Letter from J. Barker	Date of Response	Salient Comments	B.C. Hydro Response
D. Wayne Gordon, Planning Director District of Abbotsford 34194 Marshall Road Abbotsford, B.C. V2S 5E4	28 May 1991	While Council took no position regarding the best project alternative, since Clayburn is located in Matsqui, they requested information regarding the impact of upgrading Clayburn on the District as a result of additional towers and rights-of-way which may be required. Information requested by Council was as follows: 1. Will additional towers be placed in the B.C. Hydro right-of-way between the Mountain Village and Straiton developments. 2. Will additional poles be placed in the B.C. Hydro right-of-way passing through downtown Abbotsford and heading for the border.	Letter dated 27 June 1991 to Mr. Gordon from Mr. Barker (see Appendix C) explained that while there will be no new towers constructed in the vicinity of the Mountain Village Straiton Developments, modifications to existing towers will be required immediately east of Highway 11. In addition, the letter stated that the proposed upgrading at Clayburn Substation will not result in the installation of any structure on right-of-way passing through downtown Abbotsbord toward the border.
Mr. Johnny Carline Director of Planning District of Surrey 14245 - 56th Avenue Surrey, B.C. V3X 3A2	No response		
Mr. Paul Moritz Director of Planning District of Matsqui 200-32315 S. Fraser Way Clearbrook, B.C. V2T 1W7	No response		
Mr. Tass Tanner City of Langley 5549 204th Street Langley, B.C. V3A 1Z4	No response		
Mr. Ken Cameron Director of Development Services Greater Vancouver Regional District 4330 Kingsway Burnaby, B.C. V5H 4G8	No response		

3.0 CONCLUSION

The comments received from municipalities, provincial and federal government agencies and others under this ministerial referral process generally support the selection of Clayburn Substation as the most effective alternative for this project. Further discussions will be held with the Habitat Management Unit of Fisheries and Oceans Canada with respect to the protection of the fisheries resources in the vicinity of Willband Creek during the construction phase of the project. Protection measures will be embodied in the Environmental Protection Plan for the project.

APPENDIX A **Letter dated 30 April 1991 from J. Barker (B.C. Hydro) together with Listing of Recipients of the Letter and the Information Package Transmitted with the Letter.**

BCHydro

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J. (Jeff) Barker, P. Eng.
Project Manager
TEL (604) 663-4014
FAX (604) 663-2037

30 April 1991

FILE: FVSR.F2

See Attached List

Dear Mr.

PROPOSED FRASER VALLEY SYSTEM
REINFORCEMENT PROJECT
Resource Agency Referrals

B.C. Hydro is proposing to reinforce substation facilities supplying electricity to the Fraser Valley. It is expected that the increasing demand for electricity in this area will fully utilize the existing facilities by the mid 1990s, thereby requiring that these facilities be reinforced.

This reinforcement can be achieved by upgrading one of three existing 230 kV substations to include 500 kV capability. These three substations are McLellan (located in Surrey), Clayburn (located in Matsqui) and Atchelitz (located in Chilliwack). The upgrading would consist of adding 500 kV electrical equipment to one of the existing substations and connecting the substation by way of a short transmission line loop to one of the 500 kV transmission lines that run in the east-west corridor through the valley.

Reinforcement of the Clayburn substation appears to be the most effective alternative for meeting the anticipated demand for electricity in the Fraser Valley on the basis of environmental, land use and technical studies to date.

Details of the proposed project are attached. Public consultation and environmental studies are already underway and you or your staff may have been contacted already by those involved in these activities.

The proposed project is subject to the Energy Project Certificate process. Any issues, together with B.C. Hydro's mitigation measures raised during the public consultation process, identified by the environmental studies or brought to our attention by this Resource Agency Referral will be included in B.C. Hydro's application to the Minister of Energy, Mines and Petroleum Resources.

It would be greatly appreciated if you would review the enclosed material and provide me with any comments by May 31, 1991.

Please call me if you have any questions or if you require any further information. I look forward to your response.

Yours truly,

ORIGINAL SIGNED BY
J. BARKER

J. Barker, P. Eng.

JB/km

Enclosure

Mr. Bill Grant
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PROPOSED FRASER VALLEY SYSTEM REINFORCEMENT PROJECT

1.0 INTRODUCTION

The project under study is the reinforcement of substation facilities in the Fraser Valley. The project is required to meet the electrical needs of the area which are expected to fully utilize the existing system by the mid 1990s.

The system reinforcement will require a short transmission line loop between an existing substation to one of the existing 500 kV transmission lines. These lines are located in an east west corridor through the southern Fraser Valley. The installation of 500 kV substation equipment is also part of the system reinforcement.

Figure 1 provides an illustration of the study area.

2.0 PROJECT DESCRIPTION

Identification of Alternatives

Meeting the electrical needs of the Fraser Valley can be achieved by constructing a 500/230 kV substation at one of three existing 230 kV substations as shown in Figure 1, namely: McLellan, Clayburn or Atchelitz.

Each of these alternatives have been examined by B.C. Hydro as to their suitability from an engineering, environmental and system planning perspective.

These studies indicate that Clayburn Substation appears to be the most effective alternative for meeting the anticipated demand for electricity in the Fraser Valley.

Physical Description of the Clayburn Substation Reinforcement Project

Figure 2 is an aerial photograph which outlines the general location of Clayburn Substation, the area proposed for the substation reinforcement and transmission line loop, and the surrounding area. The substation and transmission lines are shown in greater detail in Figure 3.

3.0 IDENTIFICATION AND PRELIMINARY ASSESSMENT OF IMPACTS

The land required for the reinforcement of Clayburn Substation is currently owned by B.C.Hydro. In addition, a statutory right-of-way exists across a reclaimed landfill site which could be used to locate the 500 kV transmission line loop into the substation from the main transmission line corridor.

Based on studies undertaken to-date, the following environmental issues have been identified:

i) Fisheries resources and stormwater control features of Willband Creek;
ii) Visual impacts to the surrounding residences and potential recreation use of the landfill area;
iii) Worker safety during excavation work in the vicinity of the landfill due to the presence of flammable and asphyxiant gases; and
iv) Archaeological resources in the vicinity of the substation property.

These issues are currently being studied and will form part of an environmental protection plan that B.C. Hydro will develop for the project. The results of the environmental studies will be included in B.C. Hydro's application for project approval.

4.0 PUBLIC CONSULTATION PROGRAM

A newsletter describing the proposed project has been prepared and is appended hereto. This newsletter will be sent to all members of the public potentially affected by the project, as well as local and provincial government agencies. As well as outlining the project in some detail, the newsletter will solicit comments from the public. Depending on the interest and level of response, public forums may be held.

The results of the public consultation program will be documented and form part of B.C. Hydro's application for project approval.

5.0 PROJECT SCHEDULE

The proposed system reinforcement project has an in-service date of September 1994. Provided that regulatory approval is granted, design and construction would occur in the 1991-1994 period to meet this date.

Figure 4 provides a preliminary project schedule.

6.0 REGULATORY APPROVAL

B.C. Hydro anticipates making an application in June 1991 to the Minister of energy, Mines and Petroleum Resources for an Energy Project Certificate.

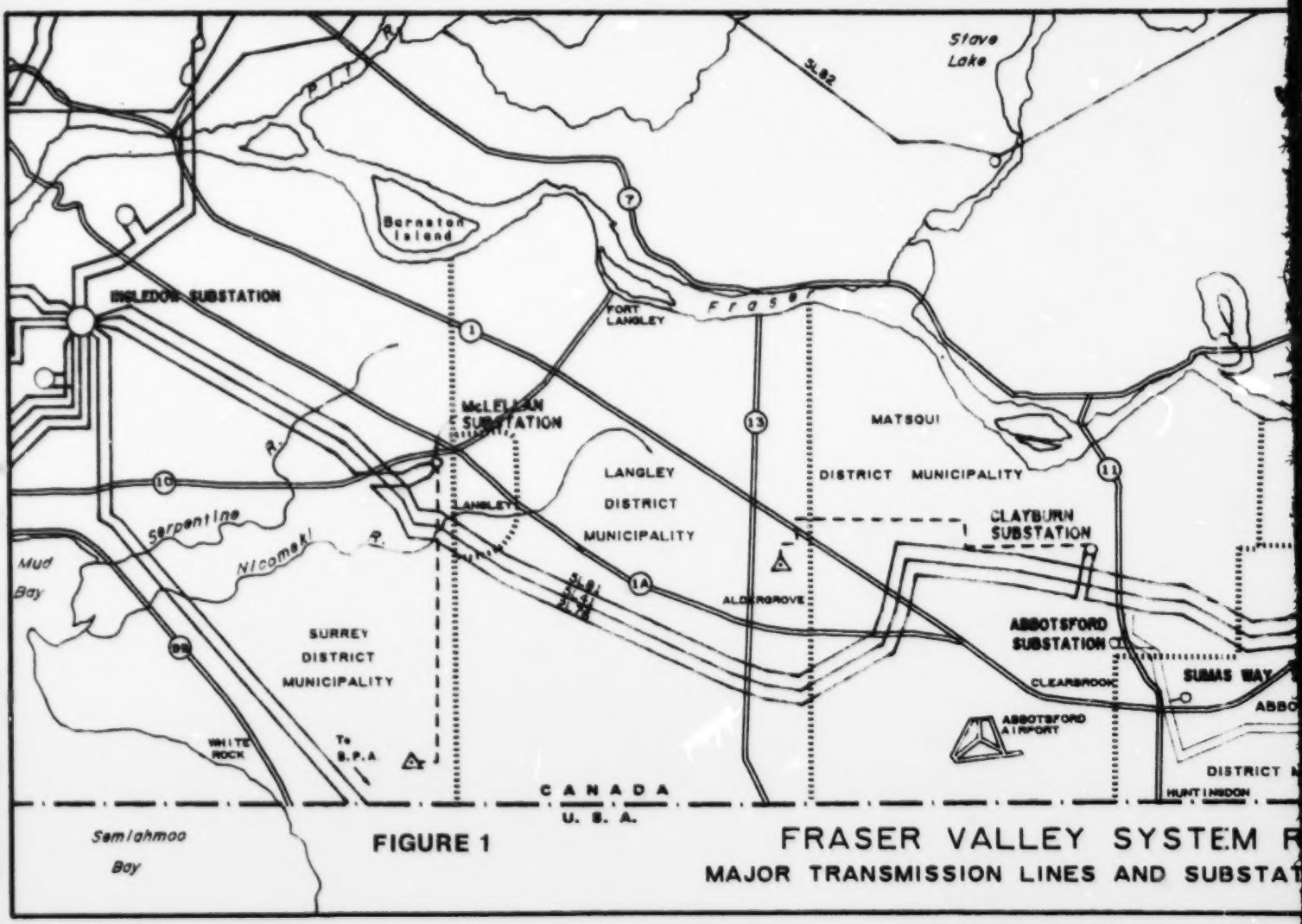
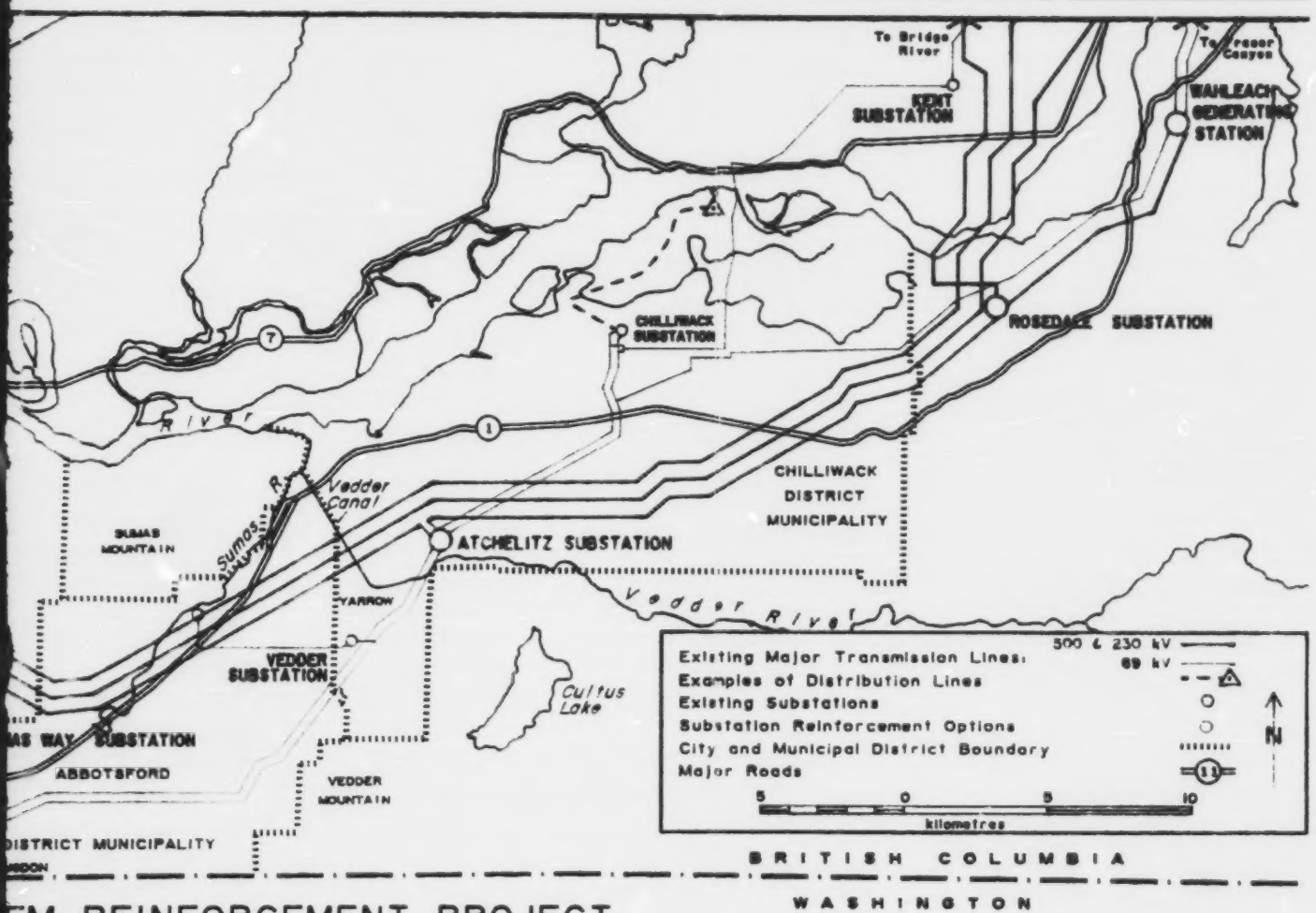


FIGURE 1

FRASER VALLEY SYSTEM R

MAJOR TRANSMISSION LINES AND SUBSTAT



EM REINFORCEMENT PROJECT

BSTATIONS IN THE CENTRAL FRASER VALLEY

PROPOSED B.C.HYDRO

FRASER VALLEY SUBSTATION REINFORCEMENT

FIGURE 2. CLAYBURN SUBSTATION SITE

LEGEND:

▪▪▪▪ Existing Rights-of-Way.

Proposed area for expansion.

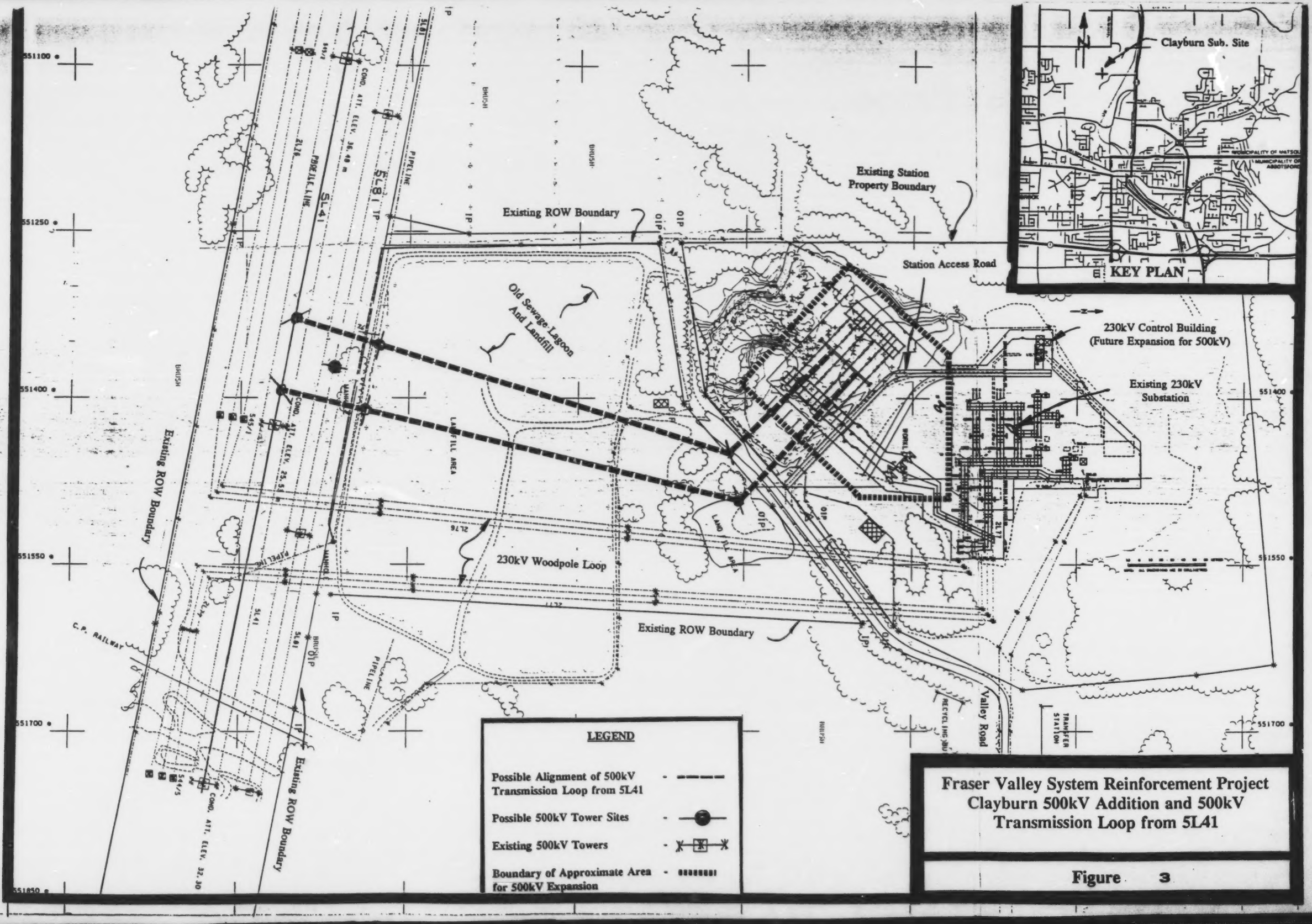
•—•— B.C.Hydro Clayburn Substation property.

Proposed 500kV Transmission Loop.

N

Scale: 0 200 400 600 m
500 1000 1500 2000 ft.

11 · 90

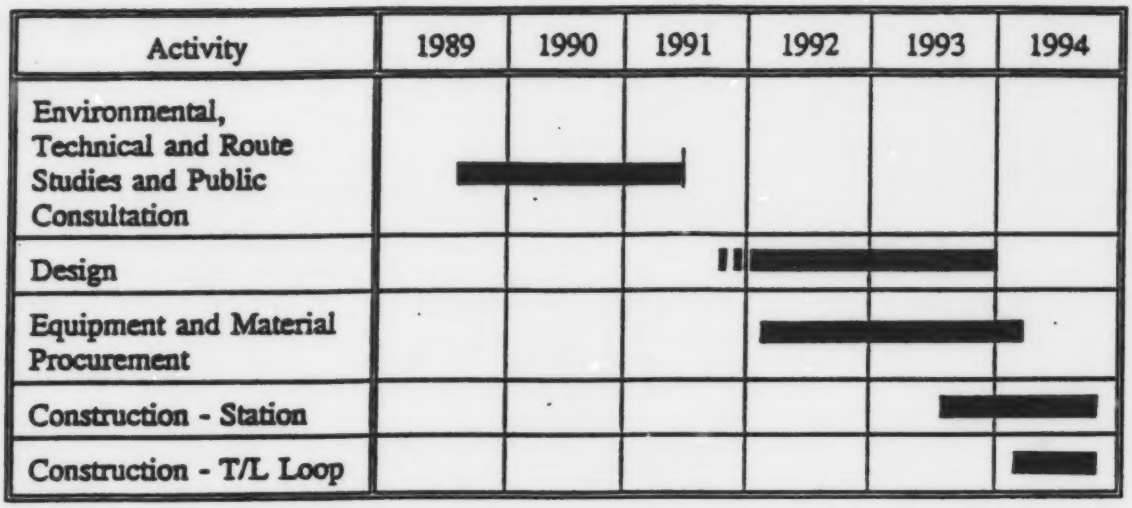


Fraser Valley System Reinforcement Project
Clayburn 500kV Addition and 500kV Transmission Loop from 5L41

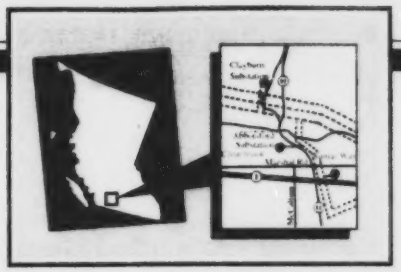
Figure 3

Figure 4.

FRASER VALLEY SYSTEM REINFORCEMENT - PROJECT SCHEDULE



BC hydro



News Brief

No. 1

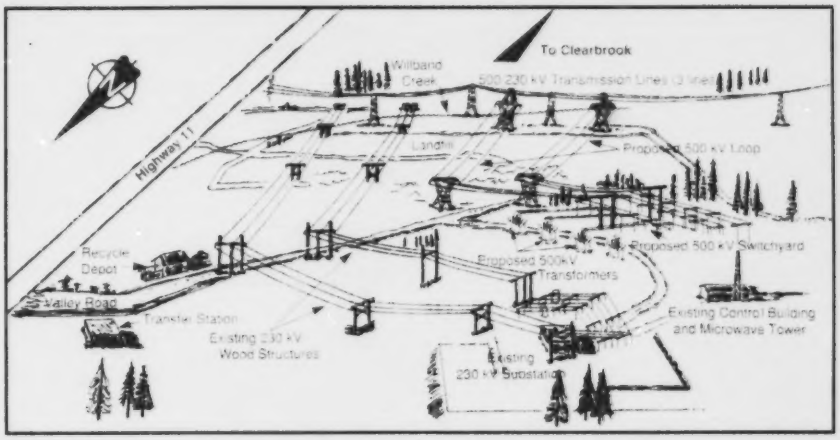
South Fraser Valley System Reinforcement

Planning continues for South Fraser Valley Electrical System Reinforcement

In 1989, B.C. Hydro initiated studies in the South Fraser Valley for a reinforcement of the electrical system to meet the growing demand for electricity in that area. During 1989 and 1990, meetings and discussions with the public as well as local and regional governments were held to help plan this reinforcement.

A proposed transmission line interconnection with Puget Sound Power and Light in Washington State was also part of those studies. Although the interconnection project is no longer being considered, planning for reinforcement of the electrical system to help meet electricity needs in the South Fraser Valley continues.

For more information write to:
B.C. Hydro,
External Relations
1610-808 Nelson Street
Vancouver, B.C. V6Z 2H2
or call
1-800-663-1377



Artists impression of reinforcements at Clayburn substation

Future Electricity Choices for Lower Mainland

Growth and development in the Lower Mainland will present new challenges to British Columbians to meet the growing demand for electricity.

To help ensure reliable supplies of energy are available, B.C. Hydro is looking to efficiency programs such as Power Smart and Resource Smart, new and expanded transmission facilities, coordination with neighboring utilities, co-generation initiatives, and independent power producers.

Determining how to best meet our demand for electricity is a shared responsibility. B.C. Hydro has initiated a new program designed to establish a process for involving Lower Mainland communities in planning their electricity needs and the most appropriate means for meeting those needs. The "Electricity in the Lower Mainland: Choices for the Future" program will be underway shortly, and will involve consultation with the public, interest groups, B.C. Hydro customers, and municipal and regional governments.

Hydro is now setting the stage for "Electricity Choices" with its continued public consultation on south Fraser Valley electrical needs and options.

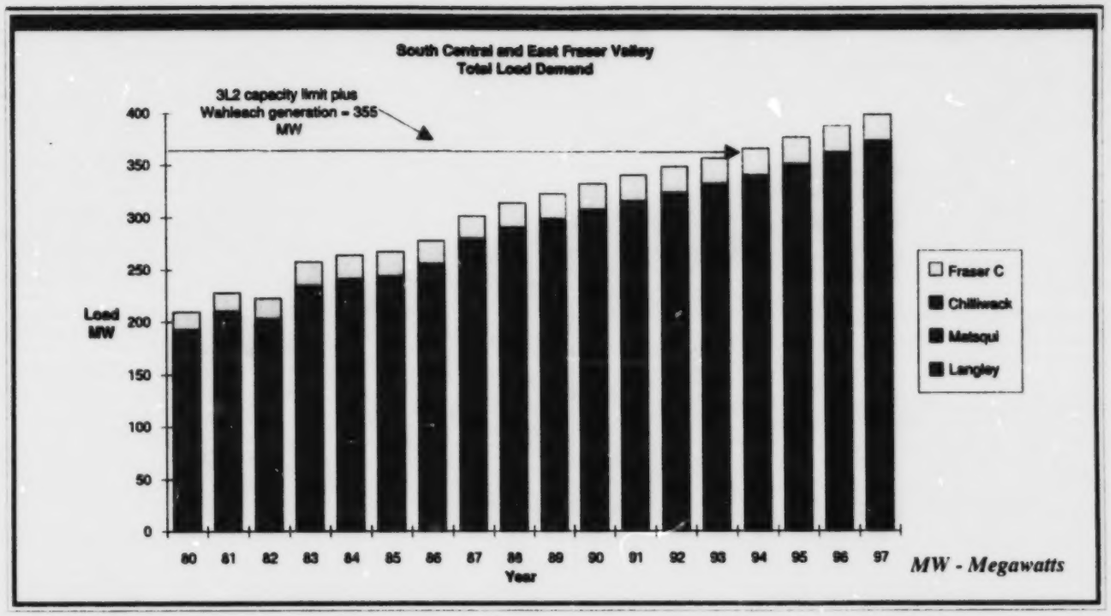
Electricity supply for the Fraser Valley

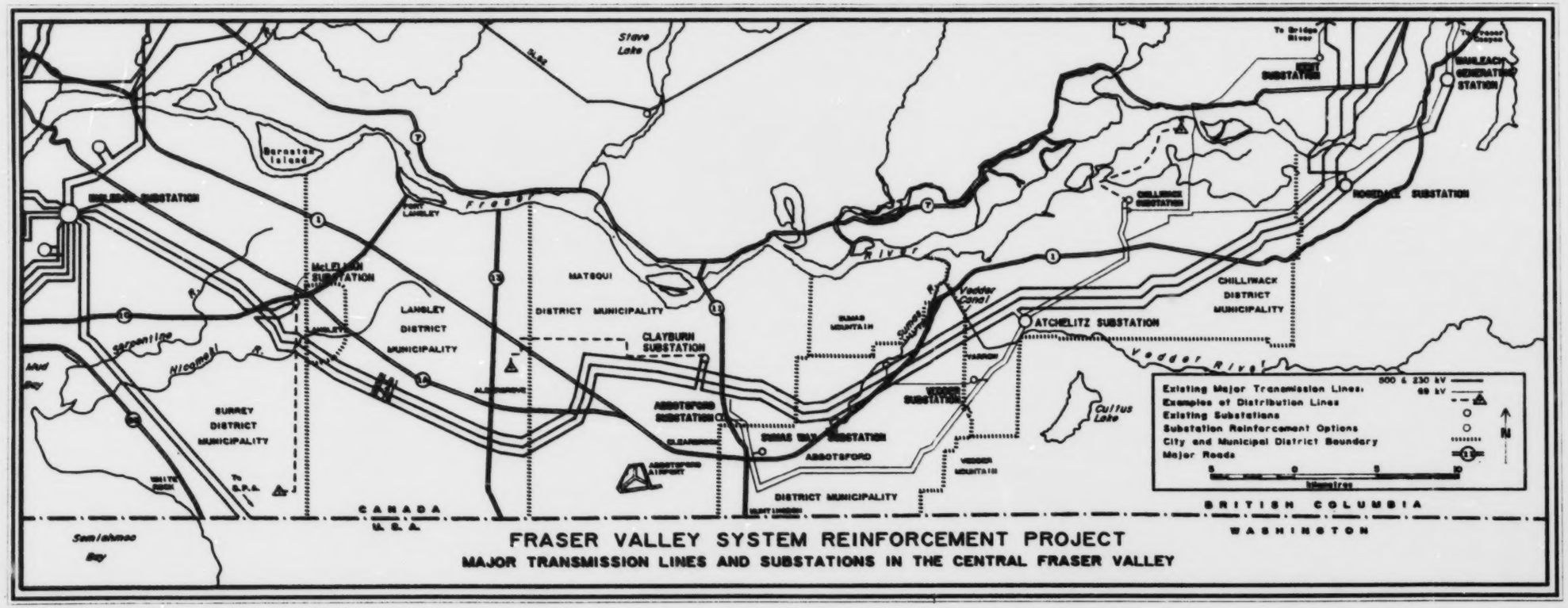
Ging power to people in the Lower Mainland is a major factor in the way B.C. Hydro plans its generation, *transmission* and *distribution* system. The transmission system connects the generation resources that produce electricity to the major substations near communities which use the electricity. From these major substations, electricity is fed into lower voltage substations and then into distribution lines which supply energy for business and households (see diagram on page 4).

Almost all the power we use in the Fraser Valley is generated elsewhere and brought to our homes and businesses by long distance transmission lines. The Lower Mainland and Vancouver Island area (of which the Fraser Valley is a part) constitutes 70 percent of the existing electrical load. Hydro expects the overall provincial load growth to increase by 3 - 4 percent annually and we anticipate the Lower Mainland and Vancouver Island area will continue to account for 70 percent of the expanded provincial load growth.

B.C. Hydro is working with communities and municipalities to determine ways to improve distribution security. A reliable transmission system is necessary to create a dependable source of electricity to the major substations for subsequent distribution to customers. Two transmission sources provide electrical energy to the South Fraser Valley. The first source is Bridge River generating plant west of Lillooet which feeds Rosedale substation along a 360 kilovolt (kV) transmission circuit. At Rosedale, electricity is transformed for transmission east to the Fraser Canyon (69 kV) and west to the Fraser Valley (230 kV).

The second source is from large generating plants in the interior which feed Ingledow, the principal transmission substation for the Lower Mainland. Ingledow also transmits electricity to the South Fraser Valley via 230 kV transmission lines through the intermediate substations of McLellan, Clayburn, and Atchelitz. Wahleach substation near Hope provides a supplementary source of electricity generation. If transmission from either





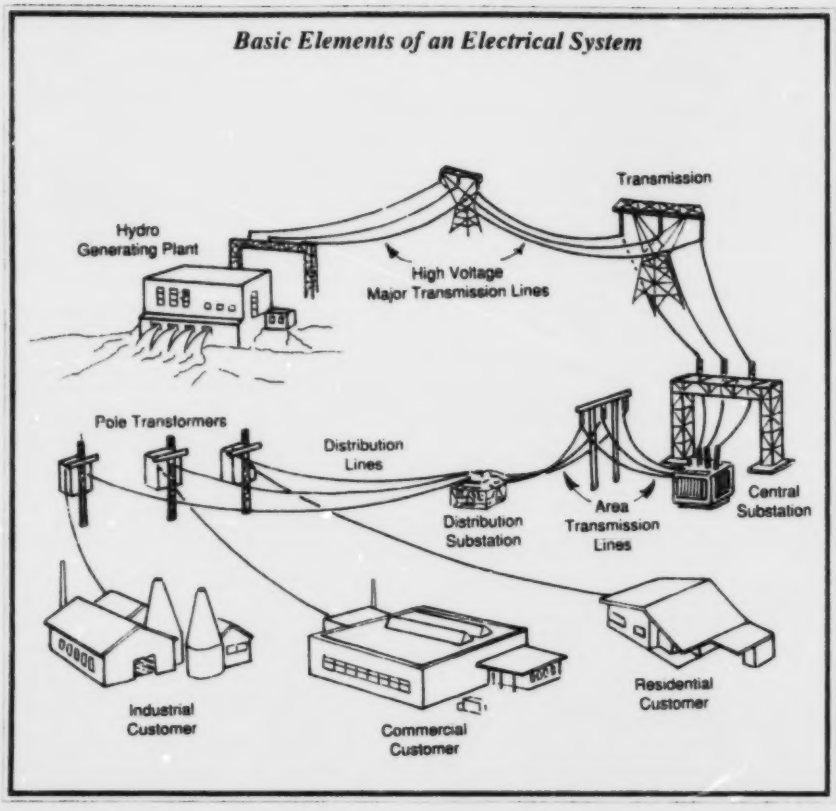
FRASER VALLEY SYSTEM REINFORCEMENT PROJECT
MAJOR TRANSMISSION LINES AND SUBSTATIONS IN THE CENTRAL FRASER VALLEY

Bridge River or Ingledow were to be interrupted, the other circuit would have to supply the total electricity demand for the South Fraser Valley and Fraser Canyon. Customers in these areas could be left without electricity during a system emergency. Population growth and commercial and industrial development will impose further demands on the electrical system serving the Fraser Valley.

Projected Growth

The Table above shows the past and projected load growth in the Langley, Matsqui, Chilliwack, and Fraser Canyon areas. The Table shows that the greatest load growth is centered in and around Matsqui.

These projections are based on growth and development estimates provided by regional planners. They include anticipated electrical savings due to B.C. Hydro's energy efficiency programs and assume that municipalities will not undertake "no-growth" policies.



System Reinforcement Options

There are three feasible options for reinforcing the transmission system to meet future electricity needs in the South Fraser Valley. The options involve modifying one of the existing 230 kV substations in the Fraser Valley at McLellan, Clayburn, or Atchelitz.

Reinforcing a substation would involve upgrading to include 500 kV transmission capacity with a loop into the substation from one of the 500 kV transmission lines running east-west through the Fraser Valley. The results of recent planning, technical and environmental studies are shown in the comparative evaluation matrix on page five.

Review of the Options

McLellan Option

Modification of the McLellan substation would meet the needs of the South Fraser Valley for about twenty years. However, additional right-of-way would be required for the transmission line connection. Design and construction costs for McLellan are much higher than costs for Clayburn or Atchelitz.

Clayburn Option

The transmission line rights of way, and the station property for both the 230kV and 500 kV components of the Clayburn substation were acquired in 1979. The 230 kV portion was built and became operational in 1984. 500 kV station reinforcement at this location would provide the most effective source of electricity in the region because of its central location, and would meet anticipated demands for electricity for more than twenty years.

Atchelitz Option

Substation changes would require additional land from the agricultural land reserve, resulting in a loss of productive farmland in the area. Although expansion could meet anticipated electricity demand (load) for about ten to fifteen years, it would not be as close to the load centre (highest population) in the Fraser Valley and would therfore be less reliable in the event of an emergency.

Non-Reinforcement Options

Power Smart is a collective name for 25 programs B.C. Hydro introduced two years ago with the objective of delaying the introduction of major new generating facilities as long as possible.

To date the combined efforts of Power Smart programs has saved the province 280 million kWh of energy annually - enough power to meet the energy needs for 28,000 new homes. The Fraser Valley plays a key role in this effort; for example in February the Otter Co-op in Aldergrove introduced Power Smart lighting in its store which will save enough energy to meet the needs of 25 B.C. homes a year .

By the mid 1990s we expect electrical savings from Power Smart to be as much as 4% of the total electrical load of the province. However ➡

Ratings of Options

CRITERIA: / OPTIONS:	Environmental Constraints	Technical/ Engineering Constraints	Cost Constraints	Land Use/Social Impacts	Visual Impacts	Risk of not meeting 1994 In-service date	Risk of not meeting long term elec. needs
McLellan Reinforcement to 500 kV	**MODERATE** adjacent to Nicomekl River flood plain	**MODERATE** compact substation required	**HIGH** $20 - 22 million	**LOW** surrounding land use is industrial, commercial	**LOW** substation is well screened	**MODERATE** some difficulty in meeting schedule	**MODERATE** will meet needs for approx. 20 years
Clayburn Reinforcement to 500 kV	**LOW** fisheries concerns in Willband Creek	**MODERATE** poor soil conditions	**MODERATE** $13 - 16 million	**MODERATE** expanding residential use in vicinity	**MODERATE** visible from some residential areas	**LOW** schedule can be met	**LOW** will meet needs for greater than 20 years
Atchelitz Reinforcement to 500 kV	**MODERATE** loss of productive farm land	**LOW** existing substation is very close to trans. lines	**MODERATE** $12 - 15 million	**HIGH** impact on existing farming operations	**LOW** addition will have incremental impact	**MODERATE** some difficulty in meeting schedule	**HIGH** will meet needs for approx. 10 - 15 years

- projected load growth, averaging 2.7% per year, may exceed 14% in the same time frame. For the South Fraser Valley, the effect of Power Smart will be to defer the need to upgrade the reliability of the transmission system in the area by over a year, to about 1995, but this will not eliminate the need for reinforcement entirely.

Summary

Reinrforcement of the 230 kV substation at Clayburn appears to be the most effective in meeting anticipated demand for electricity in the South Fraser Valley based on municipal and regional planning projections for the area.

At some time, depending on the rate of growth in the Fraser Valley, expansion of all of these substations may eventually be required. The analysis suggests that expansion should occur at the substation with the greatest potential for providing the largest number of customers with secure and reliable electricity - with the least overall impact, namely Clayburn substation.

Planning and Environmental Studies

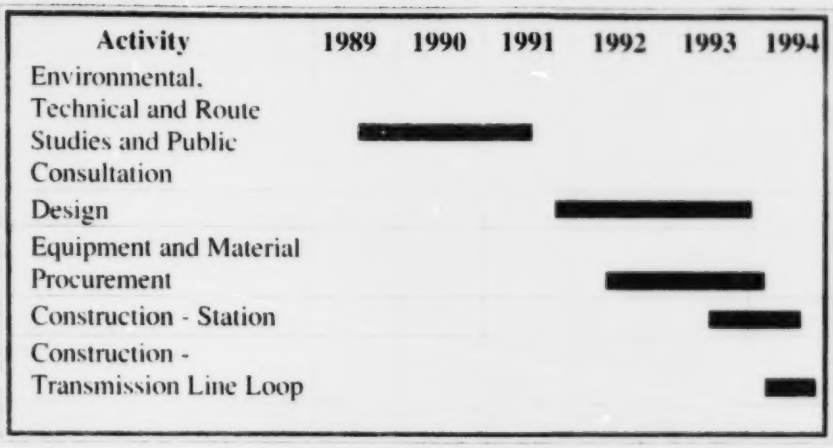
During the planning stage for all B.C. Hydro projects, environmental and social impacts of all project alternatives are carefully studied and analyzed. As part of our planning for the South Fraser Valley reinforcement project, independent consultants were retained to undertake studies on a variety of issues including: wildlife, fisheries, water and land use, forestry agriculture, heritage and archaeological resources, and visual and recreation values. These studies are designed to identify the nature of the resources that could be affected by the proposed project alternatives. The information is then used to identify how the impact on these resources can be minimized by effective planning, design and construction.

B.C. Hydro is committed to minimizing the impact of energy projects on the natural and social environments.

Approval to be Sought

All major energy projects in B.C. must satisfy the British Columbia Utilities Commission Act. This Act regulates utilities and provides for review and certification of projects that generate, use, store transport or transmit large quantities of energy. Construction of a 500 kV substation is a regulated project.

Following completion of the planning studies and public consultation, B.C. Hydro will submit an application for an Energy Project Certificate (EPC) to the Minister of Energy Mines and Petroleum Resources. The application will include the results of the technical, environmental and public consultation studies.



Project Schedule

Environmental, technical and planning studies were initiated for the substation reinforcement in 1989 and 1990.

B.C. Hydro expects application for regulatory approval to be made in the summer of 1991. If approvals are received, design and construction would take place between 1992 and 1994, with a project in-service date of 1994. The project schedule is outlined on this chart.

Public Involvement

While much of the focus of the 1989 and 1990 public meetings and discussion sessions in the South Fraser Valley was on the proposed Puget Sound Power and Light intertie, comments were also received on the substation reinforcement.

Generally, the public recognized the need for substation reinforcement in the South Fraser Valley to meet the area's growing demand for electricity. Initial indications were that Clayburn was recognized as the most suitable site for reinforcement. B.C. Hydro is now involving the public in reviewing the site location analysis.

The "Electricity Choices" program will involve all communities in the Lower Mainland in planning for their future electricity needs. This ongoing process will involve a close working relationship amongst the public, governments, special interest groups, and B.C. Hydro to determine the best means of meeting electricity needs.

If you would like to be involved in the Substation Reinforcement Project, please would you complete the form below or call us at our toll-free telephone information line (1-800-663-1377).

Your Input

We would like to hear your views on the Substation Sites outlined in this newsletter and or "Electricity Choices". Please call us collect at 1-800-663-1377 or complete this clip-out and send to:

B.C. HYDRO,
EXTERNAL RELATIONS
1610-808 Nelson Street
Vancouver B.C. V6Z 1Y3

I would like to be on the mail list for the Fraser Valley System Reinforcement Project

*Name:*_____ *Phone:*_____

*Address:*_____ *Postal Code:*_____

*Comments:*_____

_____

_____

_____

APPENDIX B **Letters to J. Barker in Response to 30 April 1991 letter.**

Province of
British Columbia

Ministry of
Agriculture
and Fisheries

May 13, 1991

Mr. Jeff Barker
Project Manager
B.C. Hydro and Power Authority
970 Burrard Street
Vancouver, B.C.
V6Z 1Y3

Dear Mr. Barker:

Re: Proposed Fraser Valley System Reinforcement Project

This is in response to your letter of April 30, 1991, re; the captioned project.

Reinforcement of the substation at Clayburn would not appear to involve any direct incursions on to neighboring agricultural lands. Any changes in the runoff patterns on Wilband Creek, could have an impact downstream in Matsqui, but I expect that this issue will be considered in the planning process.

Thank you for giving us the opportunity to comment on this proposal.

Your Truly,

W.E.A. Wickens, P. Ag.
Director,
South Coastal Region
Abbotsford

WEAW:afm

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Province of
British Columbia

Ministry of
Energy, Mines and
Petroleum Resources

Parliament Buildings
Victoria
British Columbia
V8V 1X4

May 15, 1991

Mineral Policy Branch
26, 525 Superior St
Victoria, B.C.
V8V 1X4

Mr. Jeff Barker, P. Eng.
Project Manager
BC Hydro and Power Authority
970 Burrard Street
Vancouver, B.C.
V6C 1Y3

Dear Mr. Barker:

Re: Proposed Fraser Valley System Reinforcement Project

Thank you for referring material for the above project to Mr. Bruce McRae's office for review and comment.

Comments regarding how this project may affect the resources managed by our Ministry (mineral, coal, petroleum and natural gas) are provided by this office during the Energy Project Certificate Application review process.

I have kept your material on file and will be referring to it again when we receive the application referral from our Energy Policy Analysis Branch.

Sincerely,

Janet Fontaine

Janet Fontaine
Land Use Coordinator
Mineral Policy Branch

cc: Niall Mc Millan, Energy Policy Analysis Branch, MEMPR

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Province of
British Columbia

Ministry of
Transportation
and Highways

May 15, 1991
Highway Engineering
Telephone: 387-1264
Facsimile: 356-7706
File: LT 56

BC Hydro
970 Burrard Street
Vancouver, BC
V6Z 1Y3

ATTENTION: J. Barker, P.Eng., Project Manager

Dear Mr. Barker:

Re: REINFORCEMENT PROJECT

We have reviewed the proposal and have no concerns. However, I wish to query whether Valley Road is a public road and therefore under this Ministry's jurisdiction. If it is, you will require a permit for temporary road closures during the closing of the road from our Fraser Valley District office in Chilliwack.

Thank you for the opportunity to comment on your proposal.

Highway Engineering
J. Lisman, Director

Sharon Moss for

M. J. Kent
Manager, Environmental Services

MJK:fji

copy Mr. Bill Sunderwood, District Highways Manager, Box 340 Sardis, V2R 1A7+

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Province of
British Columbia

BC Environment

Water Management Division
765 Broughton Street
Victoria
British Columbia
V8V 1X5

May 16, 1991

File: 0281880

Mr. J. Barker, P. Eng.
Project Manager
B.C. Hydro and Power Authority
970 Burrard Street
Vancouver, B.C.
V6Z 1Y3

Dear Mr. Barker:

Re: Proposed Fraser Valley System Reinforced Project

Thank you for your letter of April 30, 1991, dealing with B.C. Hydro's proposal to reinforce substation facilities in the Fraser Valley.

There would appear to be no water management implications associated with these structures, with the possible exception of impacts on local water courses, for which approvals may be required. Such approvals would be issued from our Regional office.

I have, therefore, forwarded a copy of your letter with attachments to our Surrey office and suggest that any further inquiries or requests for approvals related to water courses in this area be referred directly to:

Mr. Prad Khare
Regional Water Manager
Ministry of Environment
10334 - 152A Street
Surrey, B.C.
V3R 7P8

Yours sincerely,

P. A. Kasianchuk
Comptroller of Water Rights

cc: Mr. Prad Khare
Lower Mainland Region

Recycled Paper

BRITISH COLUMBIA UTILITIES COMMISSION

May 17, 1991

Mr. J. Barker, P.Eng.
Project Manager
British Columbia Hydro
and Power Authority
970 Burrard Street
Vancouver, B.C.
V6Z 1Y3

Jeff

Dear Mr. Barker:

Re: British Columbia Hydro and Power Authority ("B.C. Hydro")
Proposed Fraser Valley System Reinforcement Project

Thank you for your letter of April 30, 1991 and the attached information on the above project.

We have no comment on the information provided at this stage and are looking forward to receiving a copy of your Energy Project Certificate Application document in due course via the Ministry.

Yours truly,

W.J. Grant
Executive Director
Regulatory Affairs and Planning

TGC/lm
cc: N.C.J. Smith

BCH/Cor/Fraser Valley Project-Barker

BOX 250, #600, 900 HOWE STREET, VANCOUVER, B.C. V6Z 2N3 CANADA, TELEPHONE: (604) 660-4700, B.C. TOLL FREE, B.C. 1-800-663-1385, FAX: (604) 660-1102

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Province of
British Columbia

Ministry of
Transportation
and Highways

7818 - 6th Street, Burnaby, B.C. V3N 4N8 Development Approvals 660-8236

15-21-1b-GEN

May 27, 1991

B.C. Hydro and Power Authority
970 Burrard Street
Vancouver, B.C.
V6Z 1Y3

Attn: Mr. J. Barker, P.Eng.

Re: Proposed Fraser Valley System
Reinforcement Project Resource Agency Referrals

In response to your letter of April 30, 1991, we have reviewed the proposed expansion of your Matsqui facility and find our concerns appear to be unaffected.

We have referred your request to our local office in Chilliwack (Tony Larsen - Tel: 795-8363) for any concerns they may have of a more specific nature.

Thank you for your referral. If we can offer further service, please contact me at 660-8239.

Yours truly,

M.G. G. Briscoe,
Sen. Reg. Devt. Approv. Tech.

MGGB/sra

cc District Highways Manager
Fraser Valley District
Attn: Mr. Tony Larsen,
District Development Tech.

Recycled Paper

H-487 (90/08)

Province of
British Columbia

Ministry of
~~Crown Lands~~ & Parks

Lower Mainland Region
Suite 401, 4603 Kingsway
Burnaby
British Columbia
V5H 4M4
Telephone: (604) 660-5500
Rapicom: 660-5538

File: 11620-30-B001

Date: 91-05-29

Mr. J. Barker
B.C. Hydro and Power Authority
970 Burrard Street
Vancouver, B.C.
V6Z 1Y3

Dear Mr. Barker:

Re: Proposed Fraser Valley System
Reinforcement Project

Thank you for your letter of April 30, 1991 concerning this project. We understand the upgrading would occur on B.C. Hydro property and most probably at the Clayburn substation. If Crown land is not involved we have no concern.

Yours truly,

R. H. Roberts
Regional Director

LS:mmk

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Province of
British Columbia

Ministry of
Municipal Affairs,
Recreation and Culture

Parliament Buildings
Victoria
British Columbia
V8V 1X4

File: 696-46

May 31, 1991

Mr. J. Barker, P. Eng.
Project Manager
B.C. Hydro and Power Authority
970 Burrard Street
Victoria, B.C.
V6Z 1Y3

Dear Mr. Barker:

Re: Proposed Fraser Valley System Reinforcement Project

Thank you for your April 30, 1991 letter and attached information concerning this project, which was sent to Mr. K.C. Campbell of the Heritage Conservation Branch. In this regard, I wish to advise that responsibility for the province's archaeological resources has resided with the Archaeology Branch since April, 1988, and that future correspondence concerning this and other B.C. Hydro projects should be directed to:

Mr. R.A. Kenny
Senior Coordinator
Resource Management
Archaeology Branch
Ministry of Municipal Affairs,
Recreation and Culture
5th Floor, 800 Johnson Street
Victoria, B.C. V8V 1X4

We have completed our review of this Proposal and offer the following comments for consideration. The Fraser Valley System Reinforcement Project was the subject of an archaeological overview assessment, as part of the Fraser Valley Substation - Puget Sound Power and Light Intertie Project, undertaken by Points West Heritage Consulting Ltd. for B.C. Hydro. This study encompassed the area proposed for the Clayburn Substation expansion but did not include the McLellan and Atchelitz locations. In the Points West assessment it was noted that although there is extensive ground disturbance immediately adjacent to the Substation, areas to the west are undisturbed and have the potential to contain archaeological sites which could be impacted by Substation expansion. The McLellan and Atchelitz Substations locations are within an area which has been the subject of another recent archaeological overview, and fall within zones which are also identified as having the potential for containing archaeological sites. Therefore, once B.C. Hydro has selected a preferred option for this project, an archaeological impact assessment, pursuant to section 3.5

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of the British Columbia Archaeological Impact Assessment Guidelines (copy enclosed) will be required.

Should have any questions concerning these comments, please contact me at your convenience.

Sincerely,

R.A. Kenny
Senior Coordinator
Resource Management
Archaeology Branch

pc: D. Glaum

Mr. J. Baker, P. Eng.
Project Manager
B.C. Hydro and Power Authority

Re: Proposed Fraser Valley System Reinforcement Project

In reply to your letter of April 30, 1991, I have reviewed the documentation sent to me. Following consultation with our regional staff, I would advise that we have the following comments regarding the proposal:

1. Of the three proposed sites for upgrading, the Clayburn substation appears to have the least impact on the agriculture sector. If that site is chosen, little concern may be expected from this Ministry.

2. If either of the other sites are favoured, it is suggested that further consultations be held with our regional staff. Please contact Mr. Ron Charles, Manager of Agriculture Programs, South Coastal Region, Abbotsford (852-5227).

3. If any of the sites, rights of way, or access affect land within the Agricultural Land Reserve, approval of development will required from the Provincial Agricultural Land Commission. Please contact Mr. Barry Smith at the Commission in Burnaby at 660-7000.

Please call me at 356-1609 if you require more information.

Graham N.G. Dragushan
Senior Policy Analyst
Policy Branch

========== End of Transmission ==========
--- END OF MESSAGE ---

Province of
British Columbia

Ministry of
Energy, Mines and
Petroleum Resources

Parliament Buildings
Victoria
British Columbia
V8V 1X4

June 3, 1991

Mr. J. Barker
Project Manager
Fraser Valley System
Reinforcement Project
B.C. Hydro
970 Burrard Street
Vancouver, British Columbia
V6Z 1Y3

Dear Mr. Barker:

RE: PROPOSED FRASER VALLEY SYSTEM REINFORCEMENT PROJECT

The Energy Project Analysis Branch has reviewed the April 30, 1991, information package on the above, which you referred directly to selected review agencies.

Our comments are as follows:

1. I understand that the direct referral of the draft proposal to reviewers was done, in part, to expedite the review process. However, the requested one-month (April 30 to May 31) comment turnaround is unrealistic for some reviewers. The review of the formal Energy Project Certificate Application (EPCA) will be coordinated by this Branch and several months will be required to complete this process.

2. Members of the public will also have a very short time frame to respond to this information package if the EPCA is submitted in June 1991 as planned. B.C. Hydro should ensure that public input is documented and incorporated into the EPCA.

3. A key aspect of the EPCA's project justification section should be the assessment of alternatives to the upgrading of the Clayburn substation and the rationale for selecting it as the preferred option.

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4. B.C. Hydro should ensure that the EPCA satisfies all of the content requirements set out in Regulation 388/80 and the information needs of the review agencies.

Please contact me at 356-2161 or Niall Mc Millan at 356-2169 if you have any questions or need more information.

Yours sincerely,

Denise Mullen

Denise Mullen
Acting Director
Energy Project Analysis Branch

British Columbia
Agricultural
Land Commission

Telephone: (604) 660-7000
Faxcom: (604) 660-7033

Room 133, 4940 Canada Way, Burnaby, B.C. V5G 4K6

3 June 1991

Mr. J. Barker, P. Eng.
Project Manager
B. C. Hydro
970 Burrard Street
Vancouver, B. C. V6Z 1Y3

Dear Mr. Barker

Re: Proposed Fraser Valley System Reinforcement Project

This will acknowledge your correspondence of 30 April 1991 regarding the above.

The following are our comments on each of the three options for upgrading the existing 230 kV station to include 500 kV capability:

(1) McLellan Substation (located in Surrey)

The actual substation site is not in the ALR although there are ALR lands to the south across the railway. Therefore the Commission has no jurisdiction over any upgrading of the site provided there was no expansion to the south. Similarly it is anticipated that the loop to the 500 kV transmission line would also be outside the ALR and thus the Commission would have no objection.

(2) Atchelitz Substation (located in Chilliwack)

This site and all surrounding lands are completely within the ALR and consist of very high quality agricultural lands. Unless the upgrading could take place completely within the existing site boundaries, it can be anticipated the Commission would have serious reservations on this site.

(3) Clayburn Substation (located in Matsqui)

While the actual substation site is within the ALR (the southern boundary of the site forms the edge of the ALR) the Commission has been reviewing these lands (and adjacent lands to the east associated with industrial activities) with a view to potentially looking at exclusion from the ALR. Since the transmission loop would be to the south on lands outside of the ALR the Commission would likely be agreeable to the proposal to upgrade and expand this site.

On balance the Commission's preference would be either Clayburn or McLellan. It should be recognized that an application under B. C. Regulation 313/78 Section 44(f) would be required for the Clayburn site but as noted above it is not anticipated the Commission would have any objection to the proposal.

If you have any further questions or require clarification please contact the Commission.

Yours truly

AGRICULTURAL LAND COMMISSION

per:

K. B. Miller
General Manager

JPP/PR

Province of
British Columbia

Ministry of
Native Affairs

Parliament Buildings
Victoria
British Columbia
V8V 1X5

June 6, 1991

Mr. Jeff Barker
Project Manager
B.C. Hydro and Power Authority
970 Burrard Street
Vancouver, British Columbia
V6Z 1Y3

Dear Mr. Barker:

Thank you for your letter of April 30, 1991 and the attached information concerning the proposed Fraser Valley System Reinforcement Project. Please excuse my delay in responding.

Your letter was addressed to Ms. Carol McNichol who is no longer with the Ministry. I would appreciate it if you would kindly add my name to your mailing list as the contact person from the Ministry of Native Affairs.

Upon review of the material, I understand that the reinforcement can be accomplished by upgrading one of three existing 230 kV substations located in Surrey, Matsqui and Chilliwack. I also understand that the Clayburn substation appears to be the most effective alternative based on the results of environmental, land use and technical studies, undertaken by B.C. Hydro.

Based on the above, I have focused my comments on the Clayburn site, and offer for your consideration six areas of possible concern to local Native communities. Should one of the other two substation sites be chosen for the reinforcement, my comments relating to general concerns in Native communities i.e. archaeological resources, employment opportunities and consultation, would still apply.

1. Within the immediate area of the Clayburn Substation there are four reserves: Matsqui Main 2, Three Island 3, Sahhacum 1 (Matsqui Indian Band) and Upper Sumas 6 (Sumas Indian Band). In addition, there are numerous Indian settlements situated on Crown land on both banks of the Fraser River.

.../2

Recycled Paper

2. You should note, the Sumas Band has recently been affected by the installation of a transmission line. An interchange was originally designed to provide the Band direct access from their reserve, Upper Sumas No. 6, to the Trans Canada Highway. The installation of an overhead high voltage transmission line by B.C. Hydro, eliminated the possibility of an interchange being constructed. This loss of direct access had a detrimental affect on the Bands ability to market their fruits and vegetables.

3. The bands and tribal councils in the area may want to be reassured that the substation reinforcement and the transmission line loop do not adversely affect fisheries resources in the Fraser River and its tributaries, nor traditional fishing activities. You should be aware that the landmark Supreme Court of Canada decision R. v. Sparrow, involved a portion of the Fraser River located not far away from the proposed substation reinforcement site. In Sparrow, the aboriginal right to fish for food, ceremonial and social purposes, subject to Government regulation for such compelling and substantive reasons as conservation, was affirmed and protected.

4. The increasing destruction of archaeological sites by encroaching development related activities is a major concern of many Native groups. I note that the studies undertaken to-date by B.C. Hydro, have identified archaeological resources in the vicinity of the substation property. It is my understanding that these resources, along with other environmental issues, will be addressed by B.C Hydro in an environmental protection plan. I strongly recommend that this plan be done in consultation with the Sumas and Matsqui Bands. These bands can assist in identifying sites of cultural significance, and determining measures which might be taken to protect these sites.

5. Many Native groups are concerned about high unemployment levels in their communities. In the event that new personnel are required for the construction and operation of the substation and transmission line loop, an effort to hire qualified Native people from the two bands in the region would likely be well received.

6. In the recent decision Delgamuukw v A.G., Chief Justice McEachern emphasized the importance of reasonable consultation between Native people and potential developers where Native interests could be affected. In addition, you should be aware that in Delgamuukw the Government of British Columbia was assigned a fiduciary duty not to arbitrarily or unduly interfere with aboriginal cultural and subsistence activities on unoccupied Crown lands.

.../3

For the above mentioned reasons, I strongly recommend that B.C. Hydro contact the bands and tribal councils which may be affected by the substation reinforcement and transmission line loop and offer them the opportunity to review the project and provide comments and suggestions.

I have attached the addresses and contact names for the tribal councils and the bands located in the vicinity of each substation that may have an interest in this project.

Thank you for the opportunity to comment on the proposed Fraser Valley system reinforcement project. If I can be of any further assistance please do not hesitate to contact me at 356-8282.

Yours sincerely,

Nicholas P. May
Director
Natural Resource Management

Attachment

TM:if

MCLELLAN SUBSTATION
(Surrey)

The Alliance Tribal Council
130 N. Tsawwassen Drive
Vancouver, B.C.
V4K 3N2

Tribal Chairperson: Tony Jacobs
Tel: 943-6712
Fax: 943-5367

Sto:Lo Nation Canada
P.O. Box 280
Sardis, B.C.
V2R 1A6

President: Chief Ken Malloway
Tel. 858-0662
Fax. 858-7692

Sto:Lo Tribal Council
P.O. Box 310
Sardis, B.C.
V2R 1A7

Chair: Sam Douglas
Tel: 858-3366
Fax: 858-4790

Katzie Indian Band
(Member of Alliance Tribal Council)
10946 Katzie Road
Pitt Meadows, B.C.
V3Y 2G6

Contact: Chief Ed Pierre
Tel: 465-8961
Fax: 465-5949

Langley Indian Band
(Member of Sto:Lo Tribal Council)
P.O. Box 117
Fort Langley, B.C.
V0X 1J0

Contact: Chief Alfred Joe Gabriel
Tel: 888-2488

Matsqui Indian Band
(Member of Sto:Lo Nation Canada)
P.O. Box 229
31753 Harris Rd., R.R. #1
Matsqui, B.C.
V0K 1S0

Contact: Chief David McKay
Tel. 826-6145
Fax. 826-7009

Musqueam Indian Band
(Member of Alliance Tribal Council)
6370 Salish Drive
Vancouver, B.C.
V6N 2C6

Contact: Chief Wendy Grant
Tel: 263-3261
Fax: 263-4212

Semiahmoo Indian Band
(Independent)
R.R. #7, 16010 Beach Rd.
White Rock, B.C.
V4B 5A8

Contact: Chief Bernard R. Charles
Tel. 536-1794

Tsawwassen Indian Band
(Member of Alliance Tribal Council)
Bld. 132 North
Tsawwassen Drive
Delta, B.C.
V4K 3N2

Contact: Chief Frederick A. Jacobs
Tel. 943-2112
Fax. 943-9226

CLAYBURN SUBSTATION
(Matsqui)

Sto:Lo Nation Canada
P.O. Box 280
Sardis, B.C.
V2R 1A6

President: Chief Ken Malloway
Tel. 858-0662
Fax. 858-7692

Sto:Lo Tribal Council
P.O. Box 310
Sardis, B.C.
V2R 1A7

Chair: Sam Douglas
Tel: 858-3366
Fax: 858-4790

Matsqui Indian Band
(Member of Sto:Lo Nation Canada)
P.O. Box 229
31753 Harris Rd., R.R. #1
Matsqui, B.C.
VOK 1SO

Contact: Chief David McKay
Tel. 826-6145
Fax. 826-7009

Sumas Indian Band
(Member of Sto:Lo Tribal Council)
3092 Sumas Mountain Rd.
R.R. #4
Abbotsford, B.C.
V2S 4N4

Contact: Chief Lester Vernon Ned
Tel. 852-4040
Fax. 852-3834

ATCHELITZ SUBSTATION
(Chilliwack)

Sto:Lo Nation Canada
P.O. Box 280
Sardis, B.C.
V2R 1A6

President: Chief Ken Malloway
Tel. 858-0662
Fax. 858-7692

Member Bands

Aitchelitz	Peters	Squiala
Kwa-Kwa-A-Pilt	Skawahlook	Tzeachten
Lakahahmen	Skowkale	Union Bar
Matsqui	Skway	

Sto:Lo Tribal Council
P.O. Box 310
Sardis, B.C.
V2R 1A7

Chair: Sam Douglas
Tel: 858-3366
Fax: 858-4790

Member Bands

Chawathil	Popkum	Soowahlie
Cheam	Scowlitz	Sumas
Langley	Seabird Island	Yakweakwioose
Ohamil		

Skwah Indian Band
P.O. Box 178
Chilliwack, British Columbia
V2P 6H7

Contact: Chief Leslie Williams
Tel. 792-9204
Fax. 792-1093

Province of
British Columbia

Ministry of
Health

Management Operation
1515 Blanshard Street
Victoria,
British Columbia
V8W 3C6

June 10, 1991

Mr. J. Barker
Project Manager
B.C. Hydro and Power Authority
970 Burrard Street
Vancouver, B.C.
V6Z 1Y3

Dear Mr. Barker:

Re: Proposed Fraser Valley System Reinforcement Project (May, 1991)

The Ministry of Health has reviewed the proposal to upgrade the Clayburn substation and install a 500 kV transmission loop. It is understood these projects would occur on existing Hydro property and right-of-way.

An assessment of the proposal document, affirms this project would not create any issues or concerns respecting the Ministry's regulatory responsibilities or public health programs.

Should there be any changes which materially alter this project plan we would want to re-evalutate our position.

Thank you for advising the Ministry of this project.

Yours truly,

G. W. Curtis
Executive Director
Policy, Planning and Legislation

c.c. J.J. Philion, Research Officer

Province of
British Columbia

Ministry of
Lands and Parks

South Coast Region

3-16-2

1610 Mt. Seymour Road
North Vancouver, BC
V7G 1L3

91-06-12

Mr. Jeff Barker
Project Manager
B.C. Hydro and Power Authority
970 Burrard Street
Vancouver, BC
V6Z 1Y3

Dear Mr. Barker:

Re: Proposed Fraser Valley System Reinforcement Project

Thank you for the opportunity to comment on this proposal. Your letter to Mr. Gil Scott was forwarded to this office for direct comment.

We have reviewed the proposal and conclude that our interests would be unaffected.

Yours truly,

M. H. Turner
Manager of Planning and
Conservation Services

GC/vkw

Recycled Paper

Federal Environmental Assessment Review Office
Bureau fédéral d'examen des évaluations environnementales

4302-1

May 9, 1991

Mr. J. Barker
Project Manager
B.C. Hydro
970 Burrard Street
Vancouver, B.C.
V6Z 1Y3

Dear Mr. Barker:

RE: PROPOSED FRASER VALLEY SYSTEM REINFORCEMENT PROJECT

Reference is made to your letter of April 30, 1991 requesting our review of material on the subject project.

I wish to advise you that it is not the role of FEARO to undertake technical reviews of projects of this nature. FEARO's role is to provide advice and assistance to federal departments that have the responsibility for implementing the Environmental Assessment and Review Process (EARP). We would only become directly involved if a department referred the project to the Minister of Environment for a public review under the EARP.

Based on the material that you have provided, it appears that the Department of Fisheries and Oceans and Department of Environment would have an interest in this project. The appropriate contacts for this project are:

Mr. Dale Paterson
Habitat Management Unit
Fraser River Division
Department of Fisheries & Oceans
610 Derwent Way
Annacis Island
New Westminster, B.C.
V3M 5P8

Mr. Adrian Duncan
Referrals Coordinator
Environment Canada
224 West Esplanade
North Vancouver, B.C.
V3M 3H7

If you have not already done so, I suggest that you provide the material on the Fraser Valley System Reinforcement Project to them for review.

Yours sincerely,

Paul F. Scott
A/Regional Director

c.c. A. Duncan
D. Paterson

Transports Canada Aviation
Transport Canada Aviation

Suite 620, 800 Burrard Street
Vancouver, B.C. V6Z 2J8

June 4, 1991

5204-6
(FRASER VEST)

B.C. Hydro
970 Burrard Street
Vancouver, B.C.
V6Z 1Y3

Attention: Mr. J. Barker

Dear Sir:

RE: FRASER VALLEY REINFORCEMENT PROJECT

This is in reply to your letter of April 30, 1991 concerning B.C. Hydro's proposal to upgrade substations in the Fraser Valley in order to meet increasing power demands in the future.

The following comments pertain solely to the Clayburn reinforcement option, as little or no detail is provided for either the McLellan or Atchelitz alternatives. Inasmuch as there is an existing substation at the Clayburn site, with an associated network of transmission lines, we do not anticipate that the additional structures required will significantly impact aviation operations in the surrounding area. In addition, our Technical Services Branch have reviewed the proposal. They do not believe that the expansion of the Clayburn Substation will create electronic interference with any Transport Canada navigation aids or communications facilities as they are not located in close proximity to your proposed development.

When you reach the stage where the routings of the new transmission lines are selected, we would appreciate the opportunity to review them to determine what aviation obstruction markings, if any, are recommended.

If you have any questions concerning the foregoing, or wish to discuss this project further with us, please contact Mrs. Elizabeth Smith at 666-5533.

Yours truly

D.G. Neil
A/Superintendent
Air Navigation Standards & Procedures

Canada

Environment Canada
Conservation and Protection
224 West Esplanade, 5th Floor
North Vancouver, B.C. V7M 3H7

June 5, 1991

Your File: FVSR.F2
Our File: 4202-1

Mr. J. Barker, P. Eng.
Project Manager
British Columbia Hydro and Power Authority
970 Burrard Street
Vancouver, B.C.
V6Z 1Y3

Dear Mr. Barker:

Re: Proposed Fraser Valley System
Reinforcement Project
Resource Agency Referrals

Reference is made to your letter and attachments dated May 21, 1991 on the above subject.

Environment Canada has reviewed the material supplied and has no comment to make on the proposal.

Thank you for the opportunity to review this project.

Yours truly,

John M. Millen, P. Eng.

for A.C. Duncan, P.Eng.
Coordinator
Referral and Liaison

Environment Canada Environnement Canada
Made from recovered materials Fait de papiers récupérés
Canada

Fisheries and Oceans
Pêches et Océans

HABITAT MANAGEMENT UNIT
Fraser River, Northern B.C.
and Yukon Division
610 Derwent Way, Annacis Island
New Westminster, B.C.
V3M 5P8

June 20, 1991

B.C. Hydro & Power Authority
970 Burrard Street
Vancouver, B.C.
V6Z 1Y3

Attention: J. Barker, P.Eng.
Project Manager

Dear Sir:

RE: PROPOSED FRASER VALLEY SYSTEM REINFORECMENT SYSTEM
CLAYBURN SUB-STATION

Thank you for your letter dated May 21, 1991 with attachments and your earlier letter dated April 30, 1991 to Mr. P. Chamut regarding the subject.

It is our understanding that the existing sub-station on Valley Road will be expanded on property located adjacent to the present sub-station site. The new sub-station will be located above the valley floor on the same elevated terrace of land as the existing facility and will be linked to the main 500 kV line to the south by a 500 kV loop. The loop will cross an active landfill site which is also located on land once used as a sewage lagoon. At least four towers will be located in the existing landfill to support the transmission line loop.

Willband Creek flows adjacent to the southern perimeter of the existing landfill site and is also fed by tributaries located along the western boundary of the sub-station site. The Willband Creek system is utilized by both salmon and trout and is considered extremely valuable to the fisheries resource. The landfill site has become a chronic source of untreated effluent which seeps into Willband Creek during periods of high rainfall due to the high water table in the area. Effluent from landfills is highly toxic to fish due to the chemicals created by decomposition and their high biological and chemical oxygen demand.

With this in mind, we are very concerned that development in this area will further aggravate the problem of site runoff and effluent discharge into Willband Creek. Further study must be undertaken to evaluate the effect of tower sites on the landfill area and the control of drainage from the sub-station before this Department can be assured that potentially adverse impacts can be mitigated.

We request, therefore, that you provide this office with additional information which demonstrates that the site drainage, tower location, and construction activities will not adversely affect fish or fish habitat in or about Willband Creek. Please keep in mind that the valley bottom below the proposed sub-station site is completely submerged during prolonged high rainfall events.

Do not hesitate to contact Marrissa Byrne (792-1995) or Brian Dane (666-2719) should you wish further information or discussion of the matter.

Yours very truly,

for C.D. Paterson, Head
Habitat Management Unit
Fraser River, Northern B.C.
and Yukon Division

cc: P. Chamut
B. Dane
B. Reid
M. Byrne
L. Duncan, MOE

National Defence
National Defence Headquarters
Ottawa, Canada
K1A 0K2

Défense nationale
Quartier général de la Défense nationale
Ottawa, Canada
K1A 0K2

2772-6-11 (DFSM

24 June 1991

Mr. J. Barker
British Columbia Hydro and
Power Authority
970 Burrard St.
Vancouver, BC
V6Z 1Y3

Dear Mr. Barker:

I refer to your letter of 30 April 1991, concerning the proposed Fraser Valley system reinforcement project.

Examination of property management records reveals that there are no military communication facilities within interference range of the proposed routes. Therefore, the Department of National Defence has no objection to the construction in question.

Yours sincerely,

for E.R. Campbell
Lieutenant-Colonel
Director Frequency Spectrum Management

Canada

THE CORPORATION
OF THE TOWNSHIP
OF LANGLEY

4914 - 221st Street
Langley, British Columbia
Canada V3A 3Y8

Telephone: (604) 534-3211
Telex: (604) 533-xxxx
Telefax: (604) 533-6110
Direct Line: (604) 533-6055

May 9, 1991

File No. 4780-B00

Mr. J. Barker, P. Eng.
Project Manager
B. C. Hydro
970 Burrard Street
Vancouver, B. C.
V6Z 1Y3

Dear Mr. Barker:

Re: Fraser Valley System Reinforcement Project

Thank you for your letter of April 30, 1991.

From the material attached to your letter, it would appear that there is no impact on Langley since all three substations are outside the Municipality. If my understanding is correct that no physical changes are proposed within the Township, then I have no comments to offer.

Thank you for keeping us informed of B. C. Hydro's plans to reinforce the Fraser Valley System.

Yours truly,

Kurt Alberts
DIRECTOR OF COMMUNITY DEVELOPMENT

KA/cp
340-12

District of Chilliwack

8550 Young Road South,
Chilliwack, B.C. V2P 4P1
Telephone: 792-9311
Fax: 795-8443

Our File No. 6440-01

Office of: Municipal Development

May 21, 1991

B.C. Hydro and Power Authority
970 Burrard Street
Vancouver, B.C.
V6Z 1Y3

ATTENTION: Mr. J. (Jeff) Barker, P. Eng.
Project Manager

Dear Mr. Barker:

Re: Proposed Fraser Valley System Reinforcement Project

This will acknowledge your letter of April 30, 1991 addressed to our Community Planner, Peter Li.

The materials and drawings enclosed with your letter have been circulated and considered by our Planning Division, as well as the Municipal Engineering Department.

Our individual and joint assessments, of the three substations being considered for reinforcement upgrading from 230 kV to include 500 kV capability, have reached unanimous agreement that the upgrading of the Clayburn substation would provide the most viable results in both the short and long term development future.

Should you have any further need of our input we would appreciate being consulted and subsequently informed of the outcome of your endeavours with respect to this project. Thank you for the opportunity to be involved in your referral processes.

Yours truly,

R D Keen

Ralph D. Keen, P. Eng.
Deputy Director of Development

RDK:vp

REGIONAL DISTRICT OF FRASER-CHEAM

8430 CESSNA DRIVE
CHILLIWACK, B.C. V2P 7K4
PHONE: (604) 792-0061
FAX: (604) 792-9684

May 15, 1991

Planning
10-22-03-000
10-36-67-000
10-36-77-000

Mr. J. Barker, P.Eng.
B.C. Hydro & Power Authority
970 Burrard Street
Vancouver, B.C.
V6Z 1Y3

Dear Mr. Barker:

Re: Proposed Fraser Valley System Reinforcement Project

Thank you for your letter of April 30 concerning the proposed upgrading of the Clayburn Substation. It is difficult for me to interpret the implications of this project for Fraser-Cheam Regional District, and I assume that no direct construction is involved inside our boundaries. Would you please confirm my understanding. If this is the case, I should say that our interests are unaffected and that we do not have any specific comments.

On the other hand, our Regional District, in general terms, remains concerned about the potential implications for neighbouring landusers of high-tension 500 kV transmission lines. Concern has been expressed for over 20 years about the potential health effects of prolonged residential exposure to the magnetic field surrounding these transmission. As far as I know, the scientific research community is still divided on this issue. Nevertheless, it would be prudent for us to be aware of any potential upgrading of transmission lines through our Region or any additional construction within existing rights-of-way which involves high tension lines.

Thank you for the information you supplied. I appreciate the consultation.

Yours truly,

Peter W. Cave (Dr.)
Director of Planning

PWC:mlf

District of Abbotsford

34194 MARSHALL ROAD, ABBOTSFORD, B.C. V2S 5E4
TELEPHONE (604) 853-1155

GEORGE F. FERGUSON
MAYOR

S. DENNIS DONALD
MUNICIPAL CLERK

May 28, 1991

B.C. Hydro and Power Authority
970 Burrard Street
VANCOUVER,B.C.,
V6Z 1Y3

ATTENTION: MR. J. BARKER, P.ENG.

Dear Sirs:

RE: PROPOSED FRASER VALLEY SYSTEM REINFORCEMENT PROJECT

Further to your April 30, 1991 letter regarding the subject matter, I presented your information package to Council. Council appreciated being apprised of your plans to expand the Clayburn substation, and decided to take no position on this matter in as much as the installation is located in the District of Matsqui.

We are curious though whether additional powerlines will be built through the District of Abbotsford as a result of your upgrading the Clayburn substation in Matsqui. Of particular interest is whether any additional towers will be placed in your right-of-way passing between the Mountain Village and Straiton developments, or whether any additional poles will be placed in your right-of-way passing through our downtown area and heading toward the border. Further information on your expansion plans within these respective right-of-ways would be appreciated.

Yours truly,

DWG:lr

D. WAYNE GORDON
PLANNING DIRECTOR

APPENDIX C Follow-up Correspondence

BCHydro

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J. (Jeff) Barker, P. Eng.
Project Manager
TEL (604) 663-4014
FAX (604) 663-2037

21 May 1991
FILE: FVSR.F2

Mr. Adrian Duncan
Referrals Coordinator
Environment Canada
224 West Esplanade
North Vancouver, B.C.
V3M 3H7

Mr. Dale Paterson
Habitat Management Unit
Fraser River Division
Department of Fisheries and Oceans
610 Derwent Way
Annacis Island
New Westminster, B.C.
V3M 5P8

Dear Sirs:

Re: Proposed Fraser Valley System Reinforcement Project
Resource Agency Referrals

My 30 April 1991 letter (copy enclosed) to Mr. Paul Scott of the Federal Environmental Assessment Review Office requested review of information concerning the above-noted project and provision of any comments related thereto. Mr. Scott, in his 9 May 1991 reply (copy also enclosed) suggested that the material be forwarded to you for review and comment. Accordingly enclosed is that package of information, which includes a list of recipients of my above-noted 30 April 1991 letter. You will note that Mr. P. Chamut is included on that list.

I would appreciate any comments that you may have by 15 June 1991 if possible. Please call me if you have any questions or if you require any further information. I look forward to your response.

Yours truly,

J. Barker, P. Eng.

JB/km

c: Mr. P. Scott
A/Regional Director
Federal Environmental
Assessment Review Office
#510 - 750 Cambie Street
Vancouver, B.C.
V6B 2P2

BChydro

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27 June 1991

FILE: FVSR-F?

District of Abbotsford
43194 Marshall Road,
Abbotsford, B.C.
V2S 5E4

Attention: Mr. D. Wayne Gordon, Planning Director

Dear Mr. Gordon:

Re: Proposed Fraser Valley System Reinforcement Project

Thank you for your letter dated 28 May 1991 in response to our project information package on the proposed Fraser Valley System Reinforcement Project.

You had two questions with respect to the possibility of additional powerlines through the District of Abbotsford as a result of the upgrading of Clayburn Substation in Matsqui.

1. Existing Right-of-Way Between the Mountain Village and Straiton Developments

We understand that these residential developments are located east of Highway 11 on or near Sumas Mountain. For the subject project modifications to some existing 500 kV transmission towers will be required. These towers are located on the existing B.C. Hydro east-west transmission line right-of-way which passes about 500 m to the south of the Clayburn substation. However, these modifications will only extend to the east as far as to the existing tower immediately east of Highway 11 and to the west towards Gladwin Avenue in Matsqui. New transmission construction is required from this east-west transmission corridor to the Clayburn substation, a distance of about 500 m and on right-of-way currently owned by B.C. Hydro. Therefore there would be no construction in the immediate vicinity of the above-noted developments.

2. Re: B.C. Hydro Right-of-Way, Downtown Abbotsford

Transmission additions/modifications for the subject project will not result in the installation of any structure on right-of-way passing through downtown Abbotsford towards the border. Earlier studies for the

proposed intertie with Puget Sound Power and Light of Washington State identified a route option utilizing the existing B.C. Hydro right-of-way through downtown Abbotsford and then south to the border at Huntingdon, but those studies were suspended last fall. Any distribution circuit additions to the subject right-of-way to serve local area demands for electricity which may arise in the future will not be influenced by the selection of Clayburn as the site for the reinforcement project.

Yours truly,

ORIGINAL SIGNED BY
J. BARKER

J. Barker

JB/km

BC hydro

proud of our Service

J. (Jeff) Barker, P. Eng.
Project Manager
TEL (604) 663-4014
FAX (604) 663-2037

7 June 1991
FILE: FVSR-F2

Dr. Peter W. Cave
Director of Planning
Regional District of Fraser-Cheam
8430 Cessna Drive
Chilliwack, B.C.
V2P 7K4

Dear Dr. Cave:

Re: Proposed Fraser Valley System Reinforcement Project

Thank you for your 15 May 1991 letter concerning the above project. The proposed new substation facilities (to be located on the existing Clayburn substation site), and the short transmission line loop, are located just east of the Abbotsford-Mission Highway. Therefore, I can confirm your understanding as requested, that no direct construction is involved within the boundaries of the Regional District of Fraser-Cheam. Should there be any change to this proposal such that the system reinforcement would occur at the Atchelitz Substation located within your boundaries near Yarrow, I would certainly contact you again. At the moment, however, Clayburn appears to be the best location for the project.

I have asked Dr. Kelly Gibney, our Electric and Magnetic Field Project Manager to respond directly to you with respect to your comments concerning electric and magnetic fields. If you wish, Dr. Gibney can be reached at 663-3958.

Thank you once again for your prompt attention and response.

Yours very truly,

J. Barker, P. Eng.

JB/km

c: Dr. K. Gibney
(w/attach RDFC letter dated 15 May/91)

BC hydro

proud of our Service

Mark E. Walmsley
Contact: 663-1877
Environmental Resources
Fax: (604) 663-4102

3 July 1991
FILE: 2L72/73-200.0(1)

Fisheries and Oceans Canada
Habitat Management Unit
610 Derwent Way
Annacis Island
New Westminster, B.C.
V3M 5P8

Attention: C.D. Paterson, Head

Re: Proposed Fraser Valley System Reinforcement Project

Dear Mr. Paterson:

Thank you for your letter of 20 June 1991 in response to Mr. Jeff Barker's request of 21 May 1991.

I have been responsible for the environmental assessment of this project and have directed studies undertaken by consultants retained by B.C. Hydro for this purpose. To-date, we have concentrated on the collection and assessment of a wide range of environmental data and information for the project options to assist us in site selection. As part of this process, we certainly became aware early on of the fisheries values in Willband Creek and the problems associated with the landfill through discussions with personnel in your department as well as the Provincial Fish and Wildlife Branch.

As you are aware, we are preparing the application to the Minister of Energy, Mines and Petroleum Resources for an Energy Project Certificate (EPC) for this project. As part of this application, B.C. Hydro has committed to the preparation of an Environmental Protection Plan (EPP) that will detail the mitigation and protection measures that will be employed during construction, maintenance and operation of the facility. The EPP will require additional studies on a number of issues, with the fisheries resource being a very significant item. The EPP cannot be fully completed at this time since the engineering and construction details are not advanced to a stage where we can input the necessary design requirements to ensure environmental protection.

However, I can assure you that once the project is in the design stage, should the EPC be approved, we will be requesting that staff from your department assist us in reviewing the EPP and providing us with their ideas regarding the protection of fish and fish habitat in and about Willband Creek.

Thank you for your assistance in this matter. We will be in touch with you and your staff again once we have advanced our plans for the project.

Yours truly,

for: Mark E. Walmsley, P.Ag.
Environmental Resources

MEW/mca

c: J. Barker
G. Barnett
T. Parsons
C.W. Gurnsey

BCHydro

proud of our Service

J.C. Edwards
Manager, External Relations
(604) 663-3795
Fax (604) 663-3323

7 June 1991

Chief Lester Vernon Ned
Sumas Indian Band
RR #4, 3092 Sumas Mtn. Road
Abbotsford, B.C.
V2S 4N4

Dear Chief Ned:

Re: South Fraser Valley System Reinforcement

I am writing to inform you about B.C. Hydro's ongoing planning for the electrical transmission system in the south Fraser Valley.

In 1989, B.C. Hydro initiated studies on the transmission system in the area in conjunction with a possible transmission line interconnection with Puget Sound Power and Light (PSPL) in Washington State. During 1989 and 1990, discussions with the public and local and regional governments were held to assist in the planning process. Although the PSPL interconnection is no longer being considered by B.C. Hydro, planning for the electrical transmission system must continue.

Projected electrical load growth, arising from an expanding population and commercial/industrial development in Langley, Matsqui, Abbotsford and Chilliwack will necessitate reinforcement of the transmission system if B.C. Hydro is to provide a reliable electricity supply. Electricity for these areas now comes from the Bridge River generating plant near Lillooet and from other large generating plants in the interior which feed into Ingledow substation in Surrey. Electricity from these two major sources feeds into smaller substations in Langley, Matsqui and Chilliwack where it is distributed to customers.

System reinforcement will not only address projected future electricity demand but will also help ensure that customers have sufficient electricity if transmission supply from either Bridge River or Ingledow were to be interrupted during a system emergency. While B.C. Hydro has a number of programs in place, such as POWER SMART, which will slow the growth of electrical load and will continue to defer the need to reinforce the transmission system until the mid-nineties, these programs will not entirely eliminate the need for substation reinforcement.

To address this, there appears to be three feasible reinforcement options to meet projected load growth in the south Fraser Valley area. Each involves modifying one of three existing 230 kV substations located in the south central Fraser Valley. Although each option has its merits, reinforcement of the Clayburn substation in Matsqui appears to be the most favourable for a number of reasons. High levels of growth and electrical load are expected to continue in Matsqui. As well, development at Clayburn would give the longest period of service without the need for further additional facilities elsewhere. The Clayburn substation site is large enough to accommodate the needed facilities and there is an existing right-of-way connecting it to the 500 kV transmission line nearby. Hence, no additional land would be required. From an environmental standpoint reinforcement of Clayburn is likely to cause the least overall impact. The right-of-way area, most of which is a reclaimed landfill site, may therefore be made more useful for secondary public purposes.

B.C. Hydro is now contacting interested parties and property owners adjacent to the existing Clayburn substation in an effort to obtain their input on its proposed reinforcement. The results of these discussions will be reflected in a future application to the Ministry of Energy, Mines and Petroleum Resources for approval to construct the project.

We would welcome any comments you may have and will continue to keep you informed about the project. A "News Brief" has been enclosed to provide you with details on the project. For further information please call Mr. Jeff Barker, the Project Manager, at 663-4014 or Mr. Terry Parsons, our Community Relations Coordinator at 663-4458.

Yours truly,

J.C. Edwards

Enclosure

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